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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,006	04/05/2004	Toru Kamiwada	1573.1028	1598
21171	7590	03/22/2006	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			NGUYEN, PHU K	
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/817,006

Applicant(s)

KAMIWADA ET AL.

Examiner

Phu K. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 4,5,9,10 and 12-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-5, 9-10, 12-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
**PHU K. NGUYEN**  
**PRIMARY EXAMINER**  
**GROUP 2300**

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 9-10, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over BAKER et al. (5,363,475).

As per claim 4, Baker teaches the claimed "information processing apparatus for displaying a plurality of linked objects in a virtual three-dimensional space in accordance with field-of-view data, said field-of-view data defining a field-of-view and a viewpoint in said virtual space" (Baker, column 12, lines 9-29), said information processing apparatus comprising: "a memory for storing object data" (Baker, database store 7), and "control means for generating images of said objects in accordance with said object data stored in said memory and rendering said generated images onto a two-dimensional frame" (Baker, CPUs 10 and column 12, lines 15-17; the perspective projection of image onto a two-dimensional display screen), "said control means rendering the image of one object and the image of a subsequent object to which said one object is linked" (Baker, linked objects are arranged on a hierarchical tree; column 15, lines 4-25). It is noted that Baker does not explicitly teach "wherein the image of said subsequent object is rendered between said start and said end of rendering said one object". However, Baker's parallel process of object data through the parallel

processors 82-87 and post-sorters 1-200 rendering the linked objects in parallel causes the subsequent object being rendered between the start and the end of said one object; column 35, lines 24-35). Given a series of substantial-parallel processings as Baker's processors and post-sorters, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Baker's apparatus as claimed by rendering the subsequent object between the start and the end of said its preceding object because the presorter (figure 25) provides locally depth-sorted objects to the parallel processes causing one of processors starts to render data between the rendering process of other processor.

Claim 5 adds into claim 4 "said control means renders the image or partial images of said one object and the image of said other object in accordance with the distance from said viewpoint" (Baker, column 19, lines 16-49).

As per claim 9, Baker teaches the claimed "program product stored on a storage medium for use in an information processing apparatus and for displaying a plurality of linked objects in a virtual three-dimensional space in accordance with field-of-view data, said field-of-view data defining a field-of-view and a viewpoint in said virtual space" (Baker, column 12, lines 9-29), said program product comprising the steps of: "generating images of said objects in accordance with said object data" (Baker, CPUs

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10 and column 12, lines 15-17; the perspective projection of image onto a two-dimensional display screen), "rendering said generated images onto a two-dimensional frame, wherein the step of rendering comprises rendering the image of one object and the image of another object to which said one object is linked" (Baker, linked objects are arranged on a hierarchical tree; column 15, lines 4-25). It is noted that Baker does not explicitly teach "wherein the image of said subsequent object is rendered between said start and said end of rendering said one object". However, Baker's parallel process of object data through the parallel processors 82-87 and post-sorters 1-200 rendering the linked objects in parallel causes the subsequent object being rendered between the start and the end of said one object; column 35, lines 24-35). Given a series of substantial-parallel processings as Baker's processors and post-sorters, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Baker's apparatus as claimed by rendering the subsequent object between the start and the end of said its preceding object because the presorter (figure 25) provides locally depth-sorted objects to the parallel processes causing one of processors starts to render data between the rendering process of other processor.

Claim 10 adds into claim 9 "the step of rendering comprises the image or partial images of said one object and the image of said other object in accordance with the distance from said viewpoint" (Baker, column 19, lines 6-49).

As per claim 12, Baker teaches the claimed "method for processing object data for displaying a plurality of linked objects in a virtual three-dimensional space in accordance with field-of-view data, said field-of-view data defining a field-of-view and a viewpoint in said virtual space" (Baker, column 12, lines 9-29), said method comprising the steps of: "generating images of said objects in accordance with said object data" (Baker, CPUs 10 and column 12, lines 15-17; the perspective projection of image onto a two-dimensional display screen), "rendering said generated images onto a two-dimensional frame, wherein the step of rendering comprises rendering the image of one object and the image of another object to which said one object is linked" (Baker, linked objects are arranged on a hierarchical tree; column 15, lines 4-25). It is noted that Baker does not explicitly teach "wherein the image of said subsequent object is rendered between said start and said end of rendering said one object". However, Baker's parallel process of object data through the parallel processors 82-87 and post-sorters 1-200 rendering the linked objects in parallel causes the subsequent object being rendered between the start and the end of said one object; column 35, lines 24-35). Given a series of substantial-parallel processings as Baker's processors and post-sorters, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Baker's apparatus as claimed by rendering the subsequent object between the start and the end of said its preceding object because the presorter (figure 25) provides locally depth-sorted objects to the parallel processes causing one of processors starts to render data between the rendering

process of other processor.

Claim 13 adds into claim 12 "the step of rendering comprises the image or partial images of said one object and the image of said other object in accordance with the distance from said viewpoint" (Baker, column 19, lines 6-49).

As per claim 14, Baker teaches the claimed "information processing apparatus for displaying a plurality of linked objects in a virtual three-dimensional space in accordance with field-of-view data, said field-of-view data defining a field-of-view and a viewpoint in said virtual space" (Baker, column 12, lines 9-29), said information processing apparatus comprising: "a memory for storing object data" (Baker, database store 7), and "a control device generating images of said objects in accordance with said object data stored in said memory and rendering said generated images onto a two-dimensional frame" (Baker, CPUs 10 and column 12, lines 15-17; the perspective projection of image onto a two-dimensional display screen), "said control means rendering the image of one object and the image of a subsequent object to which said one object is linked" (Baker, linked objects are arranged on a hierarchical tree; column 15, lines 4-25). It is noted that Baker does not explicitly teach "wherein the image of said subsequent object is rendered between said start and said end of rendering said one object". However, Baker's parallel process of object data through the parallel

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processors 82-87 and post-sorters 1-200 rendering the linked objects in parallel causes the subsequent object being rendered between the start and the end of said one object; column 35, lines 24-35). Given a series of substantial-parallel processings as Baker's processors and post-sorters, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure Baker's apparatus as claimed by rendering the subsequent object between the start and the end of said its preceding object because the presorter (figure 25) provides locally depth-sorted objects to the parallel processes causing one of processors starts to render data between the rendering process of other processor.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.




Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (571) 272 7645. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, bipin Shalwala can be reached on (571) 272 7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phu K. Nguyen  
March 16, 06

  
PHU K. NGUYEN  
PRIMARY EXAMINER  
GROUP 2300